Appendix A: Reference Documents

APPENDIX A-1

TRANSMISSION REFERENCES from RETAAC, NVE IRP's, and PUCN FILINGS

Notable Transmission Info Referenced from RETAAC Phase 2 Report, NV Energy North and South IRP's, & PUCN Filings

Source Report	PDF Page	Transmission Improvement or Topic	Topic Discussed
RETAAC-2	8	All Transmission Ties	Table of Economic Feasibility Ranking
RETAAC-2	27	All Transmission Ties	Intertie line lengths
RETAAC-2	31	All Transmission Ties	Intertie Map w/Existing Transmission grid
RETAAC-2	32	All Transmission Ties	Intertie Map w/Renewal Resource Areas
RETAAC-2	37	All Transmission Ties	Transmission Line Cost Estimates $'s/mile
RETAAC-2	39	All Transmission Ties	Transmission Line Ranking Table
RETAAC-2	40	All Transmission Ties	MW Potential by Renewable Zone
RETAAC-2	46	All Transmission Ties	Transmission Monthly Rates for various Utilization Factors in $'s/MW
RETAAC-2	49	All Transmission Ties	Transmission Monthly Rates for various Utilization Factors in $'s/MW
RETAAC-2	51	All Transmission Ties	Transmission Intertie Ranking by Economic Feasibility
RETAAC-2	54	All Transmission Ties	Export Transmission Projects in Table format
RETAAC-2	55	All Transmission Ties	Map of Exporting Transmission Projects
RETAAC-2	56	All Transmission Ties	Descriptive Paragraphs of Exporting Transmission Projects
RETAAC-2	58	All Transmission Ties	Export Capability of Existing Transmission Facilities in Table format
RETAAC-2	59	All Transmission Ties	Map of Export Capability of Existing Transmission Facilities
RETAAC-2	62	South	Discussion of N-S Constraint in Las Vegas Area
RETAAC-2	80	All Transmission Ties	Renewable energy Zone Prioritization Criteria Detail Table
RETAAC-2	81	WAPA SOI	Four phases of WAPA's improvments described
RETAAC-2	87	WAPA Phase 1	Harry Allen-Northwest-Amagosa Valley 500 kV Project Description
RETAAC-2	87	WAPA Phase 2	Desert Rock-Mead 500 kV Project Description
RETAAC-2	88	WAPA Phase 3	Amargosa Valley-Blackhawk 500 kV Project Description
RETAAC-2	88	WAPA Phase 4	Blackhawk-Raven 500 kV Project Description
RETAAC-2	95	WAPA SOI	Map of Transmission Projects covered in SOI

Notable Transmission Info Referenced from RETAAC Phase 2 Report, NV Energy North and South IRP's, & PUCN Filings

Source Report	PDF Page	Transmission Improvement or Topic	Topic Discussed
RETAAC-2	97	WAPA SOI	Spreadsheet w/Capacity and cost for SOI Projects
SPPIRP-V2(PUCN Dkt. # 10-07003)	17	Generator Retirements	Table of recommended generation to be retired during action plan
SPPIRP-V2(PUCN Dkt. # 10-07003)	18	Transmission Action Plan	Action plan for transmission & delayed transmission items
SPPIRP-V2(PUCN Dkt. # 10-07003)	241	Whalen Testimony	Start of Whalen testimony
SPPIRP-V2(PUCN Dkt. # 10-07003)	243	Carson Lake Project	Description of Fallon 230 kV reinforcements
SPPIRP-V2(PUCN Dkt. # 10-07003)	244	Bordertown-Cal Sub	Description of Bordertown to Cal Sub 120 kV line and other changes for Bordertown Hilltop 345 kV line
SPPIRP-V2(PUCN Dkt. # 10-07003)	245	Blackhawk Substation	Explanation of Blackhawk Project delay
SPPIRP-V2(PUCN Dkt. # 10-07003)	246	Blackhawk-Mira Loma	Explanation of Blackhawk-Mira Loma 345 kV project delay
SPPIRP-V2(PUCN Dkt. # 10-07003)	246	Plumas-Sierra Interconnection	Explanation of cancellation of the Plumas-Sierra Interconnection
SPPIRP-V2(PUCN Dkt. # 10-07003)	247	Eldorado Valley	Whalen testimony regarding most desirable location for importing or exporting renewable energy
SPPIRP-V10(PUCN Dkt. # 10-07003)	8	Generator Capabilites	Table of SPP generator capabilities
SPPIRP-V10(PUCN Dkt. # 10-07003)	21	SPP Power Agreements	Table of SPP Power related agreements
SPPIRP-V10(PUCN Dkt. # 10-07003)	42	Renewable Energy Sources	Map of NV Energy Renewable Energy Sources
SPPIRP-V10(PUCN Dkt. # 10-07003)	45	Carson Lake Project	Detailed Description of the Carson Lake/Fallon 230 kV Reinforcements
SPPIRP-V10(PUCN Dkt. # 10-07003)	48	Carson Lake Project	Carson Lake Project One-Line Diagram
SPPIRP-V10(PUCN Dkt. # 10-07003)	49	Bordertown-Cal Sub	Detailed Discussion of outage that drive need 7 potential relocation of Bordertown Phase Shifter
SPPIRP-V10(PUCN Dkt. # 10-07003)	51	Bordertown-Cal Sub	One-Line Diagram of Bordertown-Cal Sub project
SPPIRP-V10(PUCN Dkt. # 10-07003)	54	Blackhawk Project	Detailed Description of Blackhawk project w/o any West Tie - South improvements
SPPIRP-V10(PUCN Dkt. # 10-07003)	56	Blackhawk Xfmr #2	Timing description
SPPIRP-V10(PUCN Dkt. # 10-07003)	56	Blackhawk-Mira Loma	Explanation of Blackhawk-Mira Loma 345 kV project delay
SPPIRP-V10(PUCN Dkt. # 10-07003)	56	Plumas-Sierra Interconnection	Explanation of cancellation of the Plumas-Sierra Interconnection
SPPIRP-V10(PUCN Dkt. # 10-07003)	58	IRP Action Plan Cash Flow	Table of the three year action plan transmission project cash flow
SPPIRP-V10(PUCN Dkt. # 10-07003)	59	ON Line	Description of two tracks ON Line can take depending on GBT

Notable Transmission Info Referenced from RETAAC Phase 2 Report, NV Energy North and South IRP's, & PUCN Filings

Source Report	PDF Page	Transmission Improvement or Topic	Topic Discussed
SPPIRP-V10(PUCN Dkt. # 10-07003)	60	West Tie Rating	Explanation that the West Tie has not been rated due to uncertainty in generation additions & timing
SPPIRP-V10(PUCN Dkt. # 10-07003)	61	Existing Tielines	Map showing existing tielines and WECC Path numbers
SPPIRP-V10(PUCN Dkt. # 10-07003)	61	Idaho-Sierra Path #16	Description and non-simultaneous ratings
SPPIRP-V10(PUCN Dkt. # 10-07003)	61	PG&E-Sierra Path #24	Description and non-simultaneous ratings
SPPIRP-V10(PUCN Dkt. # 10-07003)	61	Utah Ties - Path #32	Description and non-simultaneous ratings
SPPIRP-V10(PUCN Dkt. # 10-07003)	61	Silver Peak-Control Path #52	Description and non-simultaneous ratings
SPPIRP-V10(PUCN Dkt. # 10-07003)	61	Alturas Path #76	Description and non-simultaneous ratings
SPPIRP-V10(PUCN Dkt. # 10-07003)	63	SPP Max Import	Discussion of SPP Max Import limits by year
SPPIRP-V10(PUCN Dkt. # 10-07003)	63	SPP Max Export	Discussion of SPP Max Export limits by year
SPPIRP-V10(PUCN Dkt. # 10-07003)	64	SPP Transmission Limitations	System impact for Tracy-Valley Road 345 kV Line loss discussed
SPPIRP-V10(PUCN Dkt. # 10-07003)	64	SPP Transmission Limitations	West Tie support of Reno-Carson voltage discussed
SPPIRP-V10(PUCN Dkt. # 10-07003)	65	SPP Transmission Limitations	Ft. Churchill generation as "must run" is discussed during high Carson area loads
SPPIRP-V10(PUCN Dkt. # 10-07003)	65	SPP Transmission Limitations	Tracy-Valley Rd 345 kV line outage discussed under heavy east-west transfers
SPPIRP-V10(PUCN Dkt. # 10-07003)	65	Bordertown-Cal Sub	Tracy-Valley Rd 345 kV line outage discussed under heavy east-west transfers
SPPIRP-V10(PUCN Dkt. # 10-07003)	65	Tracy-Ft Sage	Tracy-Valley Rd 345 kV line outage discussed under heavy east-west transfers
SPPIRP-V10(PUCN Dkt. # 10-07003)	66	SPP Import Obligations	Table of SPP long term transmission import obligations
SPPIRP-V10(PUCN Dkt. # 10-07003)	66	SPP Export Obligations	Table of SPP long term transmission export obligations
SPPIRP-V10(PUCN Dkt. # 10-07003)	67	FERC Impacts	A listing of FERC orders which have impacted SPP since the last IRP
SPPIRP-V10(PUCN Dkt. # 10-07003)	70	Planning Principles	Discussion of new FERC principles required in the transmission planning process
SPPIRP-V10(PUCN Dkt. # 10-07003)	73	WAPA SOI	Discussion and map of West Tie
SPPIRP-V10(PUCN Dkt. # 10-07003)	74	RECTP	Section covering the Renewable Energy Conceptual Transmission Plan
SPPIRP-V10(PUCN Dkt. # 10-07003)	75	Eldorado Valley	Whalen testimony regarding most desirable location for importing or exporting renewable energy
SPPIRP-V10(PUCN Dkt. # 10-07003)	76	RECTP	Map of RECTP

Notable Transmission Info Referenced from RETAAC Phase 2 Report, NV Energy North and South IRP's, & PUCN Filings

Source Report	PDF Page	Transmission Improvement or Topic	Topic Discussed
SPPIRP-V10(PUCN Dkt. # 10-07003)	77	2030 Studies	List of projects required to serve 2030 loads
SPPIRP-V10(PUCN Dkt. # 10-07003)	77	Bordertown-Cal Sub	Project requirement from 2030 load studies
SPPIRP-V10(PUCN Dkt. # 10-07003)	77	Blackhawk-Tracy	Project requirement from 2030 load studies
SPPIRP-V10(PUCN Dkt. # 10-07003)	77	Blackhawk Substation	Project requirement from 2030 load studies
SPPIRP-V10(PUCN Dkt. # 10-07003)	77	Blackhawk-Prison Hill	Project requirement from 2030 load studies
SPPIRP-V10(PUCN Dkt. # 10-07003)	77	Blackhawk-Dayton	Project requirement from 2030 load studies
SPPIRP-V10(PUCN Dkt. # 10-07003)	77	Tracy-Ft Sage	Project requirement from 2030 load studies
SPPIRP-V10(PUCN Dkt. # 10-07003)	77	Blackhawk-Mira Loma	Project requirement from 2030 load studies
SPPIRP-V10(PUCN Dkt. # 10-07003)	77	West Tie - South	Project requirement from 2030 load studies
SPPIRP-V10(PUCN Dkt. # 10-07003)	77	Blackhawk Project	Project requirement from 2030 load studies
SPPIRP-V13(PUCN Dkt. # 10-07003)	4	ON Line	Overview
SPPIRP-V13(PUCN Dkt. # 10-07003)	4	HA-NW-Amar	Overview
SPPIRP-V13(PUCN Dkt. # 10-07003)	5	Harry Allen-Eldorado	Overview
SPPIRP-V13(PUCN Dkt. # 10-07003)	6	West Tie - South	Amargosa-Blackhawk 500 kV dependent on LV area improvements
SPPIRP-V13(PUCN Dkt. # 10-07003)	7	All Transmission Ties	BLM Renewable Leases Map
SPPIRP-V13(PUCN Dkt. # 10-07003)	8	All Transmission Ties	NV Energy Interconnection Queue Map
SPPIRP-V13(PUCN Dkt. # 10-07003)	9	All Transmission Ties	NV Energy Renewable Energy Transmission Plan Map
SPPIRP-V13(PUCN Dkt. # 10-07003)	10	Collector	Renewable Energy Collector Lines Table
SPPIRP-V13(PUCN Dkt. # 10-07003)	11	Core Transmission	Table of Core Transmission Lines
SPPIRP-V13(PUCN Dkt. # 10-07003)	12	System Improvements	Table of System Improvement Lines and Substations
SPPIRP-V13(PUCN Dkt. # 10-07003)	14	On Line	Capacities and relationship w/Great Basin Transmission & SWIP North
SPPIRP-V13(PUCN Dkt. # 10-07003)	15	ON Line/SWIP - North	Eastern NV Renewable Map
SPPIRP-V13(PUCN Dkt. # 10-07003)	16	West Tie - South	Description w/Transformer Capacities

Notable Transmission Info Referenced from RETAAC Phase 2 Report, NV Energy North and South IRP's, & PUCN Filings

Source Report	PDF Page	Transmission Improvement or Topic	Topic Discussed
SPPIRP-V13(PUCN Dkt. # 10-07003)	16	Western transformations	Description of western voltage interfaces between 500-345-230 kv systems
SPPIRP-V13(PUCN Dkt. # 10-07003)	17	Tracy-Ft Sage	Description + phase shifter shuffle
SPPIRP-V13(PUCN Dkt. # 10-07003)	18	West Tie - North	Description + additional Blackhawk 345 kV lines
SPPIRP-V13(PUCN Dkt. # 10-07003)	22	ON Line	Description - Detailed
SPPIRP-V13(PUCN Dkt. # 10-07003)	22	Harry Allen-Eldorado	Description - Detailed
SPPIRP-V13(PUCN Dkt. # 10-07003)	22-23	HA-NW-Amar	Description - Detailed
SPPIRP-V13(PUCN Dkt. # 10-07003)	23-24	West Tie - South	Description - Detailed including transformation substations
SPPIRP-V13(PUCN Dkt. # 10-07003)	24	West Tie - North	Description - Detailed including transformation substations
SPPIRP-V13(PUCN Dkt. # 10-07003)	26	2030 Studies	Beginning of 2030 Transmission Studies
SPPIRP-V13(PUCN Dkt. # 10-07003)	28	Tracy-Ft Sage	Comparison of Tracy-Ft Sage 345 kV line vs. Black Hawk-Mira Loma 345 kV line(1st full paragraph)
SPPIRP-V13(PUCN Dkt. # 10-07003)	28	Tracy-Ft Sage	Rationale for Tracy-Ft Sage 345 kV line(next to last bullet point)
SPPIRP-V13(PUCN Dkt. # 10-07003)	64	System Max Interchange	Maximum Import and Export Cases
SPPIRP-V13(PUCN Dkt. # 10-07003)	80	Blackhawk	Explanation of Blackhawk Project Timing
SPPIRP-V13(PUCN Dkt. # 10-07003)	88	Carson Lake	Explanation of Carson Lake Project
SPPIRP-V13(PUCN Dkt. # 10-07003)	91	Bordertown-Cal Sub	Explanation of Bordertown - Cal Sub 120 kV Project
SPPIRP-V13(PUCN Dkt. # 10-07003)	116	Generator Capabilites	Generation Capability Tables
NPCIRP-V3(PUCN Dkt. # 10-02009)	96	Whalen Testimony	Start of Whalen testimony
NPCIRP-V3(PUCN Dkt. # 10-02009)	99	ON Line	Project description and GBT implications
NPCIRP-V3(PUCN Dkt. # 10-02009)	100	ON Line	Cost and ownership share
NPCIRP-V3(PUCN Dkt. # 10-02009)	101	ON Line	Capacity rating dependent on generation locations
NPCIRP-V3(PUCN Dkt. # 10-02009)	102	ON Line	Voltage problems at high flows
NPCIRP-V3(PUCN Dkt. # 10-02009)	102	ON Line	Need for Phase shifters and SVC
NPCIRP-V3(PUCN Dkt. # 10-02009)	103	ON Line	Accept 600 MW rating and delay Phase shifters and SVC

Notable Transmission Info Referenced from RETAAC Phase 2 Report, NV Energy North and South IRP's, & PUCN Filings

Source Report	PDF Page	Transmission Improvement or Topic	Topic Discussed
NPCIRP-V3(PUCN Dkt. # 10-02009)	104	West Tie - South	Testimony about impact of permit problems through DNWR
NPCIRP-V3(PUCN Dkt. # 10-02009)	104	ON Line	Testimony regarding preference for ON Line vs. West Tie
NPCIRP-V3(PUCN Dkt. # 10-02009)	106	Northwest-Harry Allen 2nd line	Testimony requesting permission to permit 2nd line
NPCIRP-V3(PUCN Dkt. # 10-02009)	107	Northwest-Amargosa	Testimony justification
NPCIRP-V3(PUCN Dkt. # 10-02009)	107	Harry Allen-Eldorado	Testimony justification
NPCIRP-V3(PUCN Dkt. # 10-02009)	108	LV 230 kV Reactors	Testimony justification
NPCIRP-V3(PUCN Dkt. # 10-02009)	109	Toquop Interconnect	Testimony justification
NPCIRP-V3(PUCN Dkt. # 10-02009)	110	Valley Electric Interconnect	Testimony justification
NPCIRP-V3(PUCN Dkt. # 10-02009)	119	Renewable Resource Limits	Salgo testimony on operational problems with renewable resources
NPCIRP-V3(PUCN Dkt. # 10-02009)	316	IRP Action Plan	action plan
NPCIRP-V3(PUCN Dkt. # 10-02009)	323	Transmission Action Plan	Section of Action Plan specifically on trasmission
NPCIRP-V3(PUCN Dkt. # 10-02009)	326	LV 230 kV Reactors	Locations of reactors discussed
NPCIRP-V3(PUCN Dkt. # 10-02009)	328	Northwest-Harry Allen	Costs and time line
NPCIRP-V3(PUCN Dkt. # 10-02009)	328	Northwest-Amargosa	Costs and time line
NPCIRP-V3(PUCN Dkt. # 10-02009)	329	Harry Allen-Eldorado	Costs and time line
NPCIRP-V3(PUCN Dkt. # 10-02009)	332	Toquop Interconnect	Costs and time line
NPCIRP-V4(PUCN Dkt. # 10-02009)	6	ON Line	Summary paragraph
NPCIRP-V4(PUCN Dkt. # 10-02009)	7	Harry Allen-Eldorado	Summary paragraph
NPCIRP-V4(PUCN Dkt. # 10-02009)	7	Northwest-Amargosa	Summary paragraph
NPCIRP-V4(PUCN Dkt. # 10-02009)	37	IRP Summary-Transmission	Section describing the Transmission plan
NPCIRP-V4(PUCN Dkt. # 10-02009)	37	ON Line	Description, cost estimate, and allocation with GBT
NPCIRP-V4(PUCN Dkt. # 10-02009)	38	LV 230 kV Reactors	Locations and costs of reactors discussed
NPCIRP-V4(PUCN Dkt. # 10-02009)	38	Northwest-Harry Allen	Costs

Notable Transmission Info Referenced from RETAAC Phase 2 Report, NV Energy North and South IRP's, & PUCN Filings

Source Report	PDF Page	Transmission Improvement or Topic	Topic Discussed
NPCIRP-V4(PUCN Dkt. # 10-02009)	38	Northwest-Amargosa	Cost and cash flow
NPCIRP-V4(PUCN Dkt. # 10-02009)	38	Harry Allen-Eldorado	Cost and cash flow
NPCIRP-V4(PUCN Dkt. # 10-02009)	38	Harry Allen-Mead	Cost and cash flow
NPCIRP-V18(PUCN Dkt. # 10-02009)	5	Renewable Resource Limits	Operational problems with renewable resources
NPCIRP-V18(PUCN Dkt. # 10-02009)	6	SPP Export Capability	500-600 MW of Export available in all hours in the North
NPCIRP-V18(PUCN Dkt. # 10-02009)	7	SPP-Geothermal Impacts	Section analyzing geothermal generation impacts
NPCIRP-V18(PUCN Dkt. # 10-02009)	11	SPP-Wind Generation Impacts	Section analyzing variable generation impacts
NPCIRP-V18(PUCN Dkt. # 10-02009)	17	SPP-Solar Generation Impacts	Section analyzing solar generation impacts
NPCIRP-V18(PUCN Dkt. # 10-02009)	20	Geothermal Contracts	Table of Geothermal Contracts
NPCIRP-V18(PUCN Dkt. # 10-02009)	21	SPP-Wind Output Projections	Table of Wind Data
NPCIRP-V18(PUCN Dkt. # 10-02009)	35	ON Line	Study of project capabilities for different designs
NPCIRP-V18(PUCN Dkt. # 10-02009)	95	LV 230 kV Reactors	Detailed supporting study
NPCIRP-V18(PUCN Dkt. # 10-02009)	113	Sunrise	Detailed supporting study
NPCIRP-V18(PUCN Dkt. # 10-02009)	130	Valmy #3	Detailed supporting study
NPCIRP-V18(PUCN Dkt. # 10-02009)	159	ON Line	MOU
PUCN #11-05002	6/33	RTI	All 4 projects total 537 miles of new overhead 345 or 500 kV lines
PUCN #11-05002	6/33	Dixie Valley-Oreana Line	Description - 39 miles of new 345 kV line from Dixie Valley to Oreana & interconnect to existing 345 kV lines
PUCN #11-05002	6/33	Dixie Valley-Oreana Line	Discussion of 52 miles of "following existing route for 52 miles from Oreana to Tracy
PUCN #11-05002	6/33	Ft Sage-Eldorado	Description of 498 miles of 230, 345, or 500 kV lines from Ft Sage-E.Tracy-Ft.Churchill-Harry Allen-Eldorado
PUCN #11-05002	6/33	Open Transmission Planning Process	Description of "Open Season"?

Notable Transmission Info Referenced from RETAAC Phase 2 Report, NV Energy North and South IRP's, & PUCN Filings

Source Report	PDF Page	Transmission Improvement or Topic	Topic Discussed
PUCN #11-05002	8/33	Deviation from IRP Action Plan Requirement	Law requires UEPA requests to be in IRP Action Plans.
PUCN #11-05002	15/33	Line routing Info	Description fo line routes.
PUCN #11-05002	16/33	Electrical Characteristics of Lines	Description of tower types and other characteristics of proposed lines.
PUCN #11-05002	23/33	Map of projects	Map of proposed projects.
PUCN #11-05002	25/33	Map of Energy Zones	Map of Renewable Energy Zones to be served by projects.
PUCN #11-05009	5/12	Open Transmission Planning Process	Details of OTPP

APPENDIX A-2

SUMMARY OF NEIGHBORING STATES RPS

SUMMARY OF NEIGHBORING STATES RENEWABLE ENERGY PORTFOLIO STANDARD (RPS) AND EXPORT OPPORTUNITIES

A Renewable Portfolio Standard (RPS) is a regulation that requires the increased production of energy from renewable energy sources, such as wind, solar, biomass, and geothermal. The RPS mechanism generally places an obligation on electricity supply companies to produce or purchase a specified fraction of their electricity from renewable energy sources. RPS mechanisms are intended to eventually result in competition, efficiency and innovation that will deliver renewable energy at the lowest possible cost, allowing renewable energy to compete with cheaper fossil fuel energy sources.

Each state-adopted RPS has its own requirements and implementation mandates. The following summarizes these nuances.

Western State	Year Compliance Required	RPS Target
Nevada	2025	25%
California	2020	33%
Arizona	2025	15%
Utah	2025	20%
Oregon	2025	25%
New Mexico	2020	20%

The RPS requirements and history of the three key states applicable to this study, Nevada, California and Utah, are detailed as follows:

Nevada

Nevada established a renewable portfolio standard (RPS) as part of its 1997 restructuring legislation. Under the standard, NV Energy (formerly Nevada Power and Sierra Pacific Power) must use eligible renewable energy resources to supply a minimum percentage of the total electricity it sells. In 2001, the state increased the minimum requirement by 2% every two years, culminating in a 15% requirement by 2013. The portfolio requirement has been subsequently revised, most significantly by SB 358 of 2009, which increased the requirement to 25% by 2025. The 2009 amendments also raised the solar carve-out, requiring utilities to meet 6% of their portfolio requirement through solar energy beginning in calendar year 2016. The solar carve-out remains at 5% through the end of calendar year 2015.

AB 3 of 2005 allowed efficiency measures to be used to satisfy a portion of the requirement. To

qualify as portfolio energy credits, efficiency measures must be: (1) implemented after January 1, 2005; (2) sited or implemented at a retail customer's location; and (3) partially or fully subsidized by the electric utility. The measure must also reduce the customer's energy demand (as opposed to shifting demand to off-peak hours). The contribution from energy efficiency measures to meet the portfolio standard is capped at one-quarter of the total standard in any particular year. AB1 of 2007 expanded the definition of efficiency resources to include district heating systems powered by geothermal hot water.

The following schedule is currently in effect:

- 6% renewable/efficiency in 2005 and 2006
- 9% renewable/efficiency in 2007 and 2008
- 12% renewable/efficiency in 2009 and 2010
- 15% renewable/efficiency in 2011 and 2012
- 18% renewable/efficiency in 2013 and 2014
- 20% renewable/efficiency in 2015 through 2019
- 22% renewable/efficiency in 2020 through 2024
- 25% renewable/efficiency in 2025 and thereafter

In addition to solar, qualifying renewable energy resources include biomass, geothermal energy, wind, certain hydropower, energy recovery processes*, and waste tires (using microwave reduction).

The Public Utilities Commission of Nevada (PUCN) has established a program to allow energy providers to buy and sell portfolio energy credits (PECs) in order to meet energy portfolio requirements. One PEC represents one kilowatt-hour (kWh) of electricity generated by a portfolio energy system, with the exception of photovoltaics (PV), for which 2.4 PECs are credited per one actual kWh of energy produced. An adder of 0.05 is tacked on to the 2.4 multiplier for PV if the system is deemed by the PUCN to be a customer-maintained distributed generation system; that is, customer-sited PV is eligible for a 2.45 multiplier. In addition, the number of kWh saved by energy efficiency measures is multiplied by 1.05 to determine the number of PECs. For electricity saved during peak periods as a result of efficiency measures, the credit multiplier is increased to 2.0. PECs are valid for a period of four years.

To help facilitate the renewable projects required by the renewable energy portfolio standard, the PUCN established the Temporary Renewable Energy Development (TRED) Program. The TRED Program is meant to insure prompt payment to renewable energy providers in order to encourage completion of renewable energy projects. The TRED Program establishes: (1) a TRED

charge, allowing investor-owned utilities to collect revenue from electricity customers to pay for renewable energy separate from other wholesale power purchased by the electric utilities; and (2) an independent TRED trust to receive the proceeds from the TRED charge and remit payment to renewable energy projects that deliver renewable energy to purchasing electric utilities.

Nevada currently has approximately 7,835 MW of renewable energy interconnection requests in the Open Access Transmission Tariff (OATT) queue. It is currently meeting its RPS and has begun to limit Power Purchase Agreements with renewable energy developers. It is for this reason that export development is critical to the ongoing development of renewable resources in the State of Nevada.

California

California's Renewable Portfolio Standard was originally established by legislation enacted in 2002. Subsequent amendments to the law have resulted in a requirement for California's electric utilities to have 33% of their retail sales derived from eligible renewable energy resources in 2020 and all subsequent years. The law established interim targets for the utilities as shown below. By January 1, 2012, the California Public Utilities Commission (CPUC) must establish specific electricity sales targets for electric retail sellers based on the interim targets[1]:

- 20% of retail sales by December 31, 2013
- 25% of retails sales by December 31, 2016

Publicly owned municipal utilities (POUs) are not regulated by the CPUC but are affected by the law nonetheless, and their governing boards are charged with establishing procurement requirements based on the interim goals above.

Technologies eligible for the RPS include photovoltaics; solar thermal electric; wind; certain biomass resources; geothermal electric; certain hydroelectric facilities*; ocean wave, thermal and tidal energy; fuel cells using renewable fuels; landfill gas; and municipal solid waste conversion, not the direct combustion of municipal solid waste.

Legislation (AB 2514) enacted in September 2010 allows for the adoption of requirements for utilities to procure energy storage systems. The legislation instructs the CPUC to open a proceeding by March 1, 2012, to consider the adoption of these requirements which would have to be met by the investor-owned utilities in two phases: by December 31, 2015, and December 31, 2020. The CPUC has broad authority for considering these requirements. The

legislation also requires the governing boards of municipal utilities with more than 60,000 customers to consider similar requirements according to the same time schedule.

To meet California's RPS reporting requirements and the renewable energy tracking needs of 14 states and two Canadian provinces in the Western Electricity Coordinating Council (WECC), the Energy Commission and the Western Governors' Association have jointly developed the Western Renewable Energy Generation Information System (WREGIS), which began operation in June 2007. WREGIS tracks renewable energy generation and creates WREGIS certificates for every renewable energy credit (REC) generated, which are used to demonstrate compliance with state RPS policies. One REC represents one megawatt-hour (MWh) of electricity generated from a renewable resource.

The California Public Utilities Commission issued a decision on January 13, 2011, to authorize the use of tradable renewable energy credits (TRECS) for RPS compliance. From the 2010 compliance year through December 31, 2013, the use of TRECS was capped at 25% of a utility's RPS requirement, and the price of a TREC was capped at $50. SBX1-2 of 2011 appears to have put new restrictions on the use of TRECs which the CPUC will implement. According to the law, the use of TREC transactions signed after June 10, 2010 will be capped at 25% for the compliance period ending December 31, 2013, and will shrink to 10% of the requirement by 2017.

All of these rules and established RPS requirements clearly defines California as an aggressive renewable energy state. Such laws will require substantial increases in the generation of electricity from renewable energy resources, or the importation from neighboring states. Implementation of these policies will require extensive improvements to California's electric transmission infrastructure. In April 2007, the State of California implemented the Renewable Energy Transmission Initiative (RETI) project as a statewide planning process to identify the transmission projects needed to accommodate California's renewable energy goals. That report identified Out of State Resources in Nevada that totaled 22,099 MW of renewable available resource energy. This was specifically detailed as Biomass (299 MW); Geothermal (1,459 MW); Solar (18,588MW); and Wind (1,754MW). This summary of available resources excluded geothermal developments that were already under PPA contract with NV Energy since these resources are not directly available to California under contract. Specific to the export of Nevada generated renewable power, the issue still remains as to what will be allowed into California from non-California based generation.

Utah

On June 8th, 2010, the Governor of Utah enacted the "Energy Initiates and Imperatives: Utah's 10-Year Strategic Energy Plan. As with many western states, the plan included renewable energy development and export exploration. The difference between Utah and many of the other western states is that the primary reason electric rates in Utah are both low and stable is because the vast majority of electricity that is fueled by coal. Utah has abundant coal supplies. Coal mining, coal transportation and coal-fired power plants in Utah create tens of thousands of jobs, many of them in rural Utah where job opportunities are often limited. These coal-based industries and communities contribute greatly to the State's tax revenue base. Oil and gas taxes account for more than $70 million in tax revenue, property taxes from the energy industry are in excess of $100 million annually and sales and use taxes are estimated to be $63 million a year. Utah is now faced with the issue of more expensive renewable energy development, or continued coal production. In addition, California, one of the main markets historically for coal based power is turned away from coal and embracing the renewable energy demand. In response, Utah enacted *The Energy Resource and Carbon Emission Reduction Initiative* (S.B. 202) in March 2008. While this law contains some provisions similar to those found in renewable portfolio standards (RPSs) adopted by other states, certain other provisions in S.B. 202 indicate that this law is more accurately described as a renewable portfolio *goal* (RPG). Specifically, the law requires that utilities only need to pursue renewable energy to the extent that it is "cost-effective" to do so. The guidelines for determining the cost-effectiveness of acquiring an energy source include an assessment of whether acquisition of the resource will result in the delivery of electricity at the lowest reasonable cost, as well as an assessment of long-term and short-term impacts, risks, reliability, financial impacts on the affected utility, and other factors determined by the Utah Public Service Commission (PSC).

Under S.B. 202 -- to the extent that it is cost-effective to do so -- investor-owned utilities, municipal utilities and cooperative utilities must use eligible renewable energy to account for 20% of their 2025 adjusted retail electric sales. Adjusted retail sales include the total kilowatt-hours (kWh) of retail electric sales reduced by the kWh attributable to nuclear power plants, demand-side management measures, and fossil fuel power plants that sequester their carbon emissions. For example, if a utility has electric sales of 100 million megawatt-hours (MWh) in 2025, and 10 million MWh was produced at a nuclear plant, the utility would need to produce 20% of 90 million MWh from renewable energy sources to be in compliance.

While RPSs adopted by most states include interim targets that increase over time, Utah's goal has no interim targets. The first compliance year is 2025 (although utilities must file progress reports on January 1 of 2010, 2015, 2020 and 2024). Progress reports must indicate the actual

and projected amount of qualifying electricity the utility has acquired the source of the electricity, an estimate of the cost for the utility to achieve their target, and any recommendations for a legislative or program change.

APPENDIX A-3

RETAAC PHASE II REPORT REFERENCE & MAPS

Governor Jim Gibbons'

Nevada Renewable Energy Transmission

Access Advisory Committee Phase II

Volume I Executive Summary and Report

July 1, 2009

Volume I contains the Committee's Executive Summary and Report
Volume II contains the presentations made to the Committee
Both Volumes, and all the Committee meeting minutes and agendas, can be found on the Committee's web site
http://www.retaac.org/

Table of Contents

Introduction

Nevada is blessed with some of the richest renewable resources in the world. We are also fortunate to have the full spectrum of renewable resources including geothermal, wind, solar and even biomass. Very few other regions in the world are so lucky. There are enough megawatts of renewable resources in Nevada to easily fulfill our renewable electricity needs and the needs of our surrounding states.

Developing these resources will bring billions of dollars in investment capital to the state. It will diversity our economy, create thousands of high-paying jobs, help protect our pristine high desert environment and reduce our water use. However, without the transmission necessary to get the electricity generated by these projects to markets none of these resources will be tapped.

Nevada's Governor Jim Gibbons recognized the critical role transmission plays in the development and protection of our state's resources. To help identify and remove the barriers to transmission he created the Renewable Energy Transmission Access Advisory Committee (RETAAC). This report contains the findings and recommendations of that committee. The members of the Committee thank the Governor for the opportunity to serve our great state and look forward to working with government and industry to build the transmission lines that will unleash the economic power represented by our states bountiful renewable resources.

Executive Summary

Background

On June 12, 2008, Governor Jim Gibbons signed an Executive Order creating the second phase of RETAAC to further the committee's initial efforts as described in the RETAAC Phase I Report dated December 31, 2007. The committee was charged with: (i) determining power potential for the renewable energy zones designated by the first phase; (ii) the review of environmental, land use and permitting constraints; (iii) the identification of potential construction corridors that could avoid these constraints, and (iv) the review of potential revenue needs for construction, among other duties.

In establishing the Phase II Committee, the governor stated that: "….,the first RETAAC committee made a recommendation to initiate Phase II to define the environmental and physical feasibility issues, costs and potential financing mechanisms associated with the recommended 14 transmission routes. This [Phase II] committee will implement this recommendation."

The nineteen (19) Phase II committee members were appointed by the Governor under the chairmanship of Daniel (Dan) Schochet. They included representation from key interest groups who were given the task of working together to recommend the mechanisms finance and construct the additional transmission lines to access the state's vast renewable energy resources for the benefit of the citizens of Nevada.

To implement the objectives of RETAAC Phase II, the committee created Study Groups with the following assignments:

1. *Environmental and Land Use Constraints:* The Environmental and Land Use Constraints Study Group consisted of members of state and federal agencies with interest and oversight of these issues, along with volunteers from industry and advocacy groups. The study group was tasked with providing information on these issues which could be used in prioritizing and analyzing the feasibility of constructing the proposed transmission lines to the renewable energy zones. ***After evaluating available secondary data collected for this project and consulting with representatives from land management agencies, no fatal flaws were indentified for the proposed interconnections.***

2. *Renewable Energy Zone Prioritizations:* The Renewable Energy Zone Prioritization Study Group was tasked with: a) developing a method for prioritizing the zones defined in RETAAC Phase I, and the transmission links that serve these zones; and b) presenting these recommendations to RETAAC Phase II. The methodology developed resulted in a matrix which employed four evaluation criteria: (i) renewable energy potential; (ii) cost of transmission construction; (iii) transmission environmental impact; and (iv) other system benefits from

transmission. ***This matrix served as the basis for the analysis by the Economic Feasibility Study Group.***

3. *Economic Feasibility:* The Economic Feasibility Study Group was tasked with answering the critical questions including: (i) how much does a transmission line developer need to charge for the use of the transmission line to recover the construction costs and operating and maintenance expenses including a sufficient return on the investment; (ii) how much are the resource developers willing to pay for the use of the transmission line; and (iii) are the renewable resource providers still competitive after recovering the cost of delivering their energy to load centers. ***The results of this analysis indicates that certain transmission lines could charge economically acceptable fees for the use of the transmission lines and that these fees could recover the costs, if the transmission line usage were fully subscribed.***

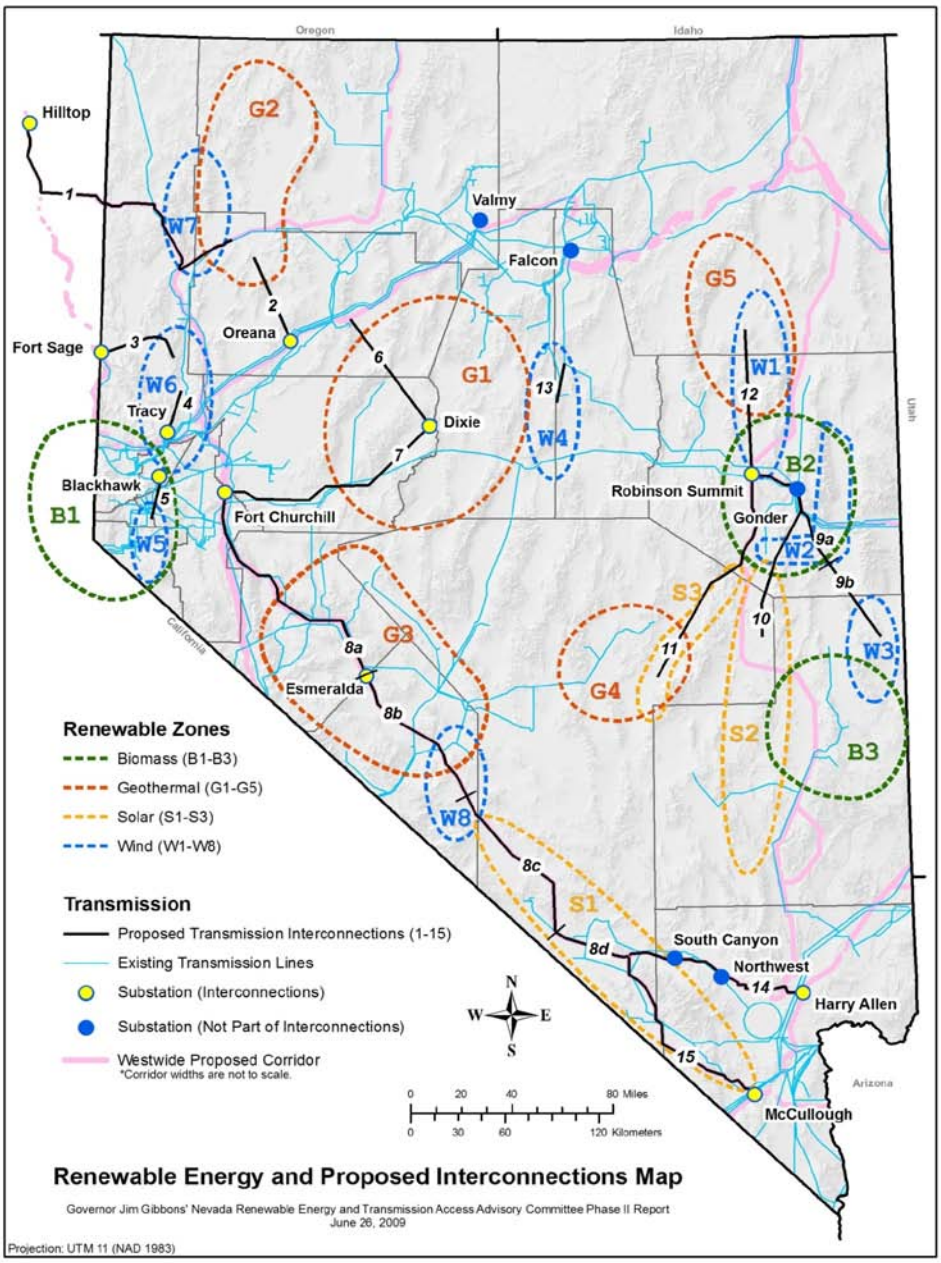
4. *Transmission for Export:* The Export Study Group was tasked with identifying existing transmission facilities and proposed transmission projects that could be used to export energy from Nevada's renewable resources to adjacent states. This task assumed that such export would in essence be in addition to the needs of Nevada load serving utilities and would also result in economic benefit to the citizens of the state. ***The results indicate that a significant market exists in California, Arizona and elsewhere for Nevada's renewable energy and that the transmission paths are feasible.***

5. Feasibility Criteria: The Feasibility Criteria Study Group, which consisted of representatives of: (i) publically owned and investor owned utilities; (ii) representatives of the Public Utility Commission of Nevada: (iii) the committee chairman; and (iv) the Governor's Energy Advisor, was tasked with drafting the recommendations for the RETAAC approval.

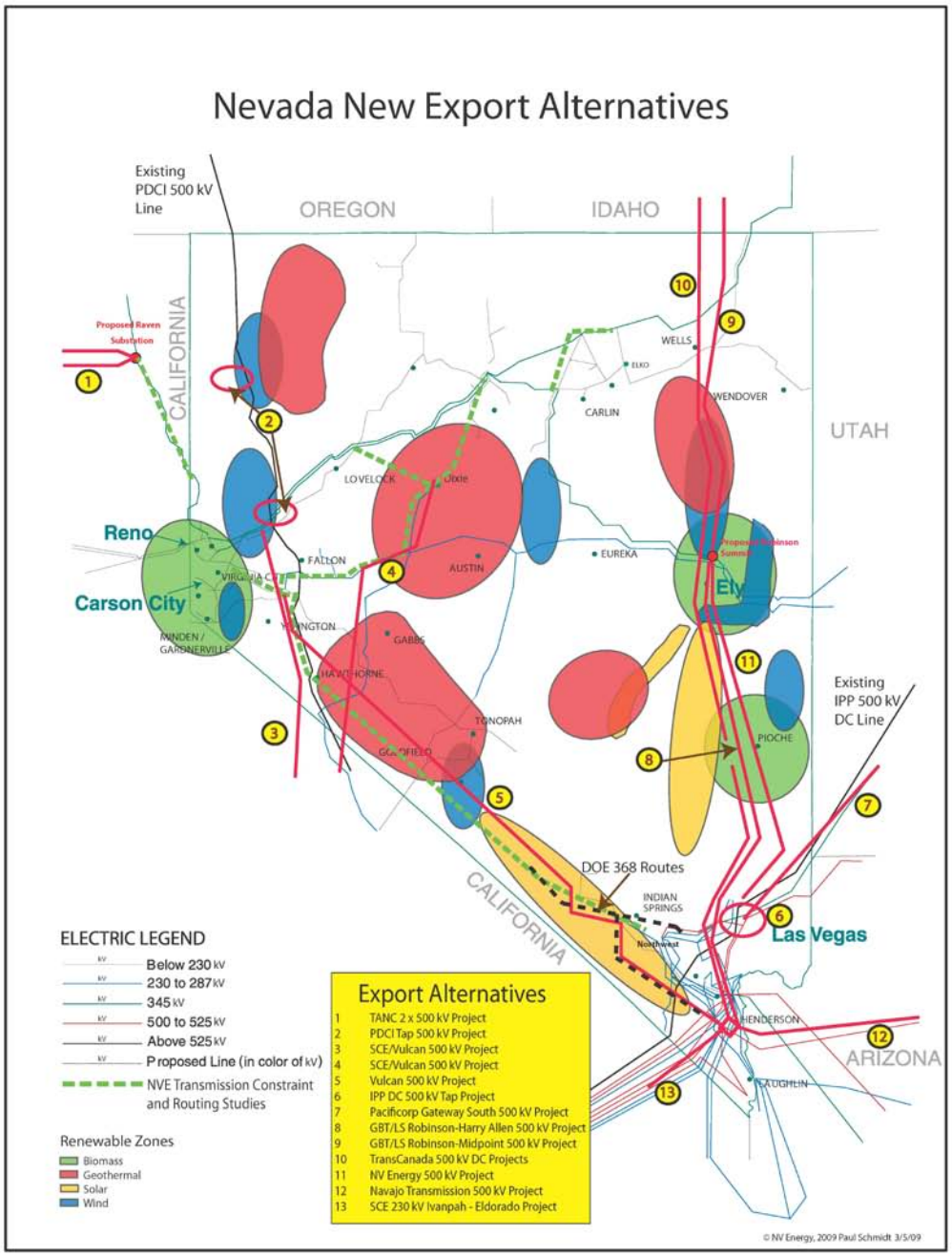
Findings

The chapters in this report are the work product of their respective Study Groups. These highly detailed, technical work products contain findings and recommendations which are generalized and summarized here.

The first principal finding is a map showing what are believed to be the state's most economically viable renewable energy zones and the transmission necessary to access the electricity believed to be contained within those zones.



New transmission lines necessary to export the electricity contained in the zones were also identified.



The final principal finding ranks the economic feasibility of the transmission needed to access each prioritized renewable energy zone.

ECONOMIC FEASIBILITY AND RENEWABLE ENERGY ZONE PRIORITY (REZP) RANKINGS

Transmission Segment	Zone	Terminals	Construction Cost ($million)	Economic Feasibility Ranking	REZP Ranking
8D+14	S-1	Harry Allen	$358.0	1	1
9A	W-2	Robinson	$118.1	2	1
2	G-2	Oreana	$26.8	3	4
9A+9B	W-3	Robinson	$176.9	4	3
8D+15	S-1	McCullough	$417.3	5	4
5	W-5	Blackhawk	$18.8	6	7
10	S-2	Robinson	$221.7	7	7
8A	G-3	Ft. Churchill/Blackhawk	$163.3	7	10
12	G-5	Robinson	$81.9	9	11
4	W-6	Tracy	$47.0	10	7
7	G-1	Ft. Churchill/Blackhawk	$167.5	11	4
13	W-4	Frontier	$55.2	12	16
3	W-6	Ft. Sage	$58.9	13	11
12	W-1	Robinson	$81.9	14	11
11	G-4	Robinson	$112.5	15	16
8A+8B	W-8	Ft. Churchill/Blackhawk	$216.0	16	20
6	G-1	Oreana	$120.9	16	11
8A+8B+8C	S-1	Ft. Churchill/Blackhawk	$127.9	18	15
1	G-2	Hilltop	$82.4	18	16
8C+8D+14	W-8	Harry Allen	$131.5	20	16
8C+8D+15	W-8	McCullough	$131.5	21	20

Recommendations

To finance and construct the additional transmission lines as recommended and prioritized by the Study Groups, RETAAC Phase II makes the following recommendations:

1. Renewable energy access to the Nevada transmission grid is facilitated by providing the state with a robust and reliable statewide transmission system, which serves all load customers from all available and potential generation sources. This is the surest way to promote the access to the grid by renewable energy resources.

2. The tax exempt bond financing mechanism, under consideration by the Governor's office, and other such mechanisms, should be encouraged to develop a financing program which can substantially reduce the cost of constructing new transmission lines and facilities and thus enhance their economic feasibility. However; regardless what the driving technical, regulatory, or siting issues are, establishing a mechanism to repay the investment is critical before any plan can move forward with the construction of these transmission lines and associated facilities.

3. The Public Utilities Commission of Nevada, as the primary utility regulatory agency in the state, to the extent possible, should employ flexibility so as to encourage new renewable transmission construction for in state use and export to adjacent states by:

    - Considering the impacts of local and statewide economic development as an element in the planning and approval of new transmission,

    - Encouraging flexibility in financing of new transmission construction; and

    - Considering the requirements of the state's utilities to meet Nevada's Portfolio Standard mandate when evaluating proposed new transmission construction projects.

4. New renewable transmission should be designed and constructed by entities that have the financial capacity, the expertise, and the understanding of local and regional Nevada issues as well as the experience to design, permit, construct and integrate these facilities into the existing grid.

5. The state should create a functional entity, which will serve as a "one stop shop" to assist potential transmission providers in working with local, state, federal agencies and tribal lands in overcoming the permitting and siting constraints and barriers so as to expedite the construction of the required new transmission lines and facilities.

6. The state of Nevada should work with new and existing state and federal statutes, as well as seek additional resources to further the recommendations of this report.

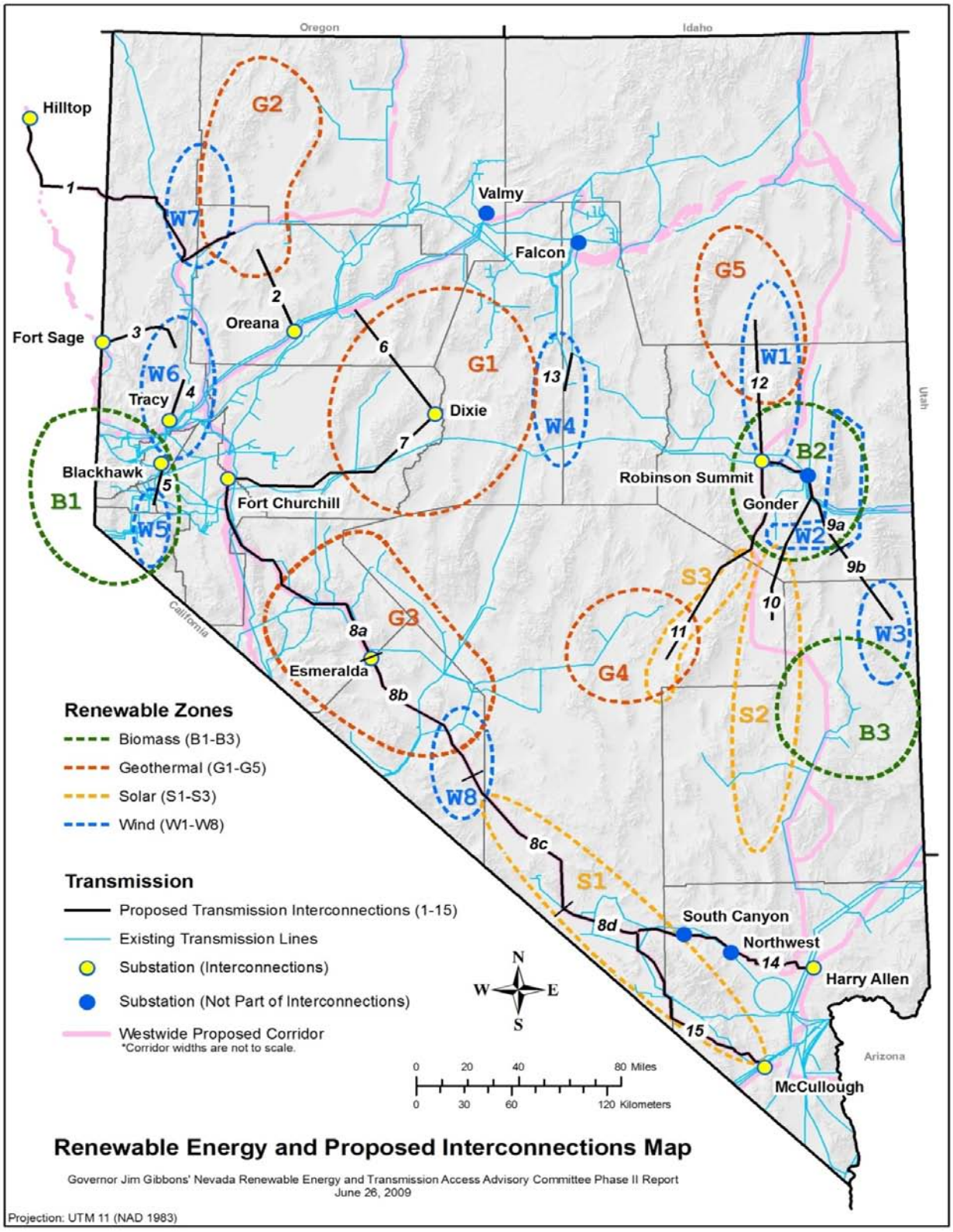

Oregon
Idaho
Utah
California
Arizona
Hilltop
Fort Sage
Tracy
Blackhawk
Oreana
Fort Churchill
Valmy
Falcon
Dixie
Esmeralda
Robinson Summit
Gonder
South Canyon
Northwest
Harry Allen
McCullough
G1
G2
G3
G4
G5
W1
W2
W3
W4
W5
W6
W7
W8
B1
B2
B3
S1
S2
S3
1
2
3
4
5
6
7
8a
8b
8c
8d
9a
9b
10
11
12
13
14
15
Renewable Zones
Biomass (B1-B3)
Geothermal (G1-G5)
Solar (S1-S3)
Wind (W1-W8)
Transmission
Proposed Transmission Interconnections (1-15)
Existing Transmission Lines
Substation (Interconnections)
Substation (Not Part of Interconnections)
Westwide Proposed Corridor
*Corridor widths are not to scale.
N
W
E
S
0 20 40 80 Miles
0 30 60 120 Kilometers
Renewable Energy and Proposed Interconnections Map
Governor Jim Gibbons' Nevada Renewable Energy and Transmission Access Advisory Committee Phase II Report
June 26, 2009
Projection: UTM 11 (NAD 1983)

FIGURE 2

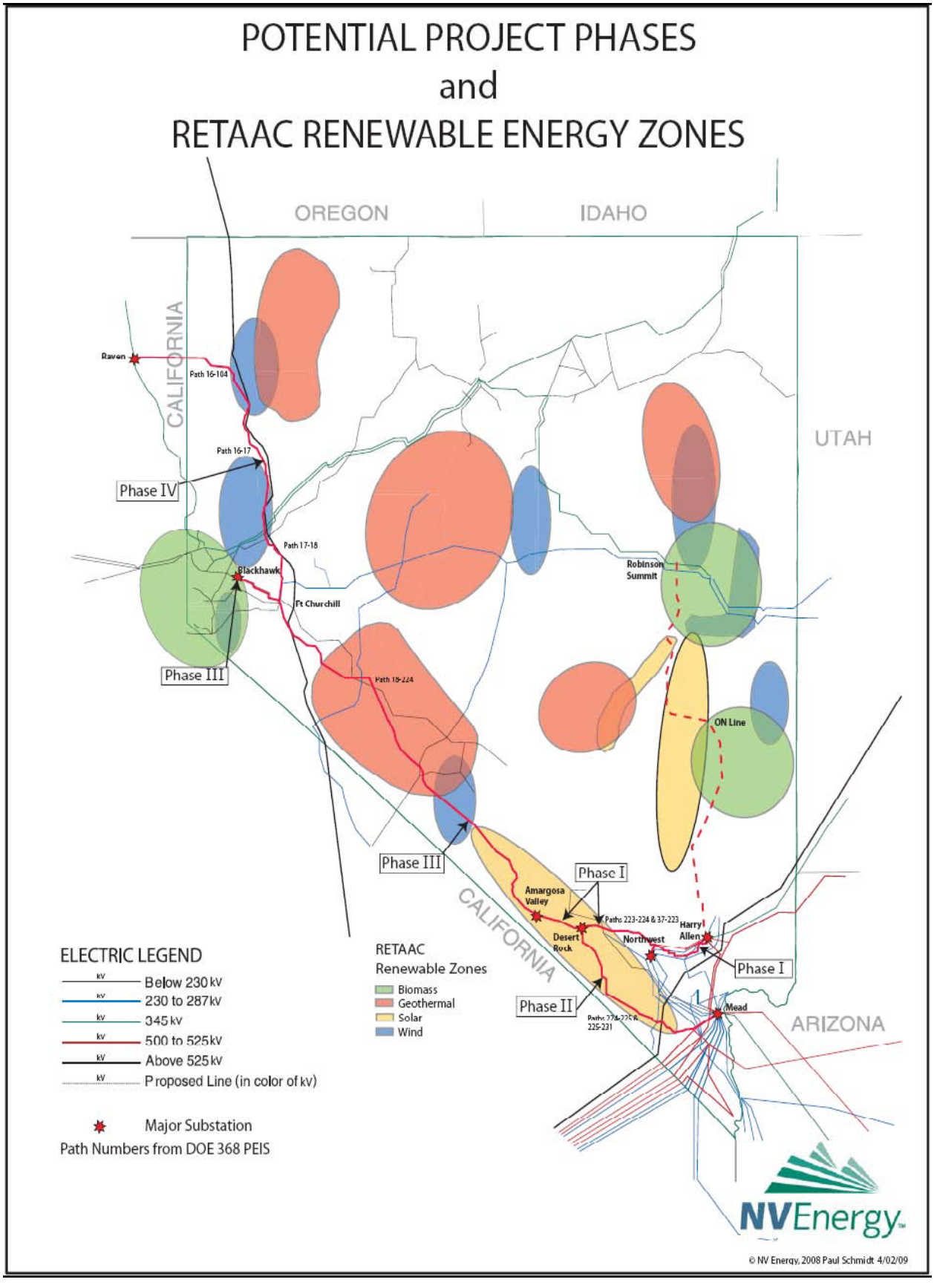

POTENTIAL PROJECT PHASES
and
RETAAC RENEWABLE ENERGY ZONES
OREGON
IDAHO
UTAH
ARIZONA
CALIFORNIA
CALIFORNIA
Raven
Path 16-104
Path 16-17
Phase IV
Path 17-18
Blackhawk
Ft Churchill
Phase III
Path 18-224
Phase III
Robinson Summit
ON Line
Phase I
Amargosa Valley
Paths 223-224 & 37-223
Desert Rock
Northwest
Harry Allen
Phase I
Phase II
Mead
Paths 224-225 & 225-231
ELECTRIC LEGEND
Below 230 kV
230 to 287 kV
345 kV
500 to 525 kV
Above 525 kV
Proposed Line (in color of kv)
Major Substation
Path Numbers from DOE 368 PEIS
RETAAC
Renewable Zones
Biomass
Geothermal
Solar
Wind
NVEnergy
© NV Energy, 2008 Paul Schmidt 4/02/09

FIGURE 2

APPENDIX A-4

SUMMARY OF ASSEMBLY BILL NO. 387

ASSEMBLY BILL NO. 387 – MARCH 16, 2009

ENERGY

A.B. 387 (Chapter 246)

Assembly Bill 387 revises provisions relating to the triennial resource plans of electric utilities. It directs the Public Utilities Commission of Nevada (PUCN) to designate renewable energy zones where resources are sufficient to develop generating capacity and where transmission constrains the delivery of electricity to customers. The bill also directs the PUCN to require an electric utility to include a plan for construction of transmission facilities to serve the zones in its resource plan.

In its review of an electric utility's resource plan, A.B. 387 requires the PUCN to consider the level of financial commitment from developers of renewable energy projects in each zone. The PUCN may accept a transmission plan for a given zone if the construction of transmission facilities would assist the utility in meeting the renewable portfolio standard.

Assembly Bill 387 also revises the renewable portfolio standard (RPS). The bill:

- Requires a provider of electric service to generate, acquire, or save not less than 25 percent of electricity sold in 2025 and each year thereafter from renewable energy systems or efficiency measures;

- Requires at least 6 percent of the RPS requirement in 2016 and each year thereafter to be generated or acquired from solar renewable energy systems;

- Amends the definition of "renewable energy system" to include systems that transmit electricity via power lines connected to, but not owned, operated, or controlled by a provider; and

- Establishes a separate, parallel RPS requirement for a provider of new electric resources effective on the date on which the PUCN issues an order approving the application.

This measure is effective on July 1, 2009.

Assembly Bill No. 387–Assemblymen Conklin, Kirkpatrick, Leslie, Buckley, Oceguera; and Bobzien

CHAPTER.....

AN ACT relating to public utilities; requiring public utilities to submit certain information regarding renewable energy to the Public Utilities Commission of Nevada; authorizing the Commission to approve construction or expansion of transmission facilities based on an expectation of future renewable energy development; revising provisions requiring certain providers of electric service to comply with a portfolio standard for renewable energy; and providing other matters properly relating thereto.

Legislative Counsel's Digest:

Section 6 of this bill requires a utility to submit with its plan to increase its supply of electricity or decrease the demands made by its customers a description of specific geographic zones where renewable energy could be used to generate electricity but transmission facilities are inadequate to deliver such electricity to customers.

Section 7 of this bill requires the Public Utilities Commission of Nevada to consider the level of financial commitment from developers of renewable energy projects when evaluating a plan submitted pursuant to NRS 704.741.

Section 8 of this bill allows the Commission to accept a transmission plan if it would help the utility to meet the portfolio standard defined in NRS 704.7805.

Section 4.3 of this bill requires the Commission to report to the Director of the Legislative Counsel Bureau by February 15 of each odd-numbered year concerning any transmission plan proposed, accepted or made known to the Commission since the last report.

Section 9 of this bill revises the amount of electricity that a provider must generate, acquire or save to satisfy the portfolio standard from 2025 onward. **Section 9** also revises the amount of electricity that must be generated or acquired from solar energy renewable systems to satisfy the portfolio standard from 2015 onward. Additionally, **section 9** exempts providers of new electric resources from the portfolio standard that is applicable to other providers of electric service.

Section 4.7 of this bill provides that the portfolio standard for electricity sold by providers of new electric resources is the portfolio standard set forth in NRS 704.7821 which is effective on the date on which the Commission issues an order approving an application or request submitted by the provider of new electric resources.

Section 11 of this bill requires the plan described in **section 6** to be filed not later than January 1, 2011. **Section 12** of this bill requires the Commission to adopt regulations designating renewable energy zones not later than January 1, 2010.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. NRS 701B.290 is hereby amended to read as follows:

701B.290 1. After a participant installs a solar energy system included in the Solar Program, the Commission shall issue portfolio energy credits for use within the system of portfolio energy credits adopted by the Commission pursuant to NRS 704.7821 ~~.~~ ***and section 4.7 of this act.***

2. The Commission shall designate the portfolio energy credits issued pursuant to this section as portfolio energy credits generated, acquired or saved from solar renewable energy systems for the purposes of the portfolio standard.

3. All portfolio energy credits issued for a solar energy system installed pursuant to the Solar Program must be assigned to and become the property of the utility administering the Program.

Sec. 2. NRS 701B.640 is hereby amended to read as follows:

701B.640 1. After a participant installs a wind energy system included in the Wind Demonstration Program, the Commission shall issue portfolio energy credits for use within the system of portfolio energy credits adopted by the Commission pursuant to NRS 704.7821 ***and section 4.7 of this act*** equal to the actual or estimated kilowatt-hour production of the wind energy system.

2. All portfolio energy credits issued for a wind energy system installed pursuant to the Wind Demonstration Program must be assigned to and become the property of the utility administering the Program.

Sec. 3. NRS 701B.870 is hereby amended to read as follows:

701B.870 1. After a participant installs a waterpower energy system included in the Waterpower Demonstration Program, the Commission shall issue portfolio energy credits for use within the system of portfolio energy credits adopted by the Commission pursuant to NRS 704.7821 ***and section 4.7 of this act*** equal to the actual or estimated kilowatt-hour production of the waterpower energy system of the participant.

2. All portfolio energy credits issued for a waterpower energy system installed pursuant to the Waterpower Demonstration Program are assigned to and become the property of the utility administering the Program.

Sec. 4. Chapter 704 of NRS is hereby amended by adding thereto the provisions set forth as sections 4.3 and 4.7 of this act.

Sec. 4.3. ***On or before February 15 of each odd-numbered year, the Commission shall review, approve and submit to the***

Director of the Legislative Counsel Bureau for transmittal to the next regular session of the Legislature a written report compiling all information about any transmission plan proposed by, adopted by or made known to the Commission since the last report.

Sec. 4.7. ***1. If the Commission issues an order approving an application that is filed pursuant to NRS 704B.310 or a request that is filed pursuant to NRS 704B.325 regarding a provider of new electric resources and an eligible customer, the Commission must establish in the order a portfolio standard applicable to the electricity sold by the provider of new electric resources to the eligible customer in accordance with the order. The portfolio standard must require the provider of new electric resources to generate, acquire or save electricity from portfolio energy systems or efficiency measures in the amounts described in the portfolio standard set forth in NRS 704.7821 which is effective on the date on which the order approving the application or request is approved.***

2. Of the total amount of electricity that a provider of new electric resources is required to generate, acquire or save from portfolio energy systems or efficiency measures during each calendar year, not more than 25 percent of that amount may be based on energy efficiency measures.

3. If, for the benefit of one or more eligible customers, the eligible customer of a provider of new electric resources has paid for or directly reimbursed, in whole or in part, the costs of the acquisition or installation of a solar energy system which qualifies as a renewable energy system and which reduces the consumption of electricity, the total reduction in the consumption of electricity during each calendar year that results from the solar energy system shall be deemed to be electricity that the provider of new electric resources generated or acquired from a renewable energy system for the purposes of complying with its portfolio standard.

4. As used in this section:

(a) "Eligible customer" has the meaning ascribed to it in NRS 704B.080.

(b) "Provider of new electric resources" has the meaning ascribed to it in NRS 704B.130.

Sec. 5. NRS 704.736 is hereby amended to read as follows:

704.736 The application of NRS 704.736 to 704.751, inclusive, ***and section 4.3 of this act*** is limited to any public utility in the business of supplying electricity which has an annual operating revenue in this state of $2,500,000 or more.

Sec. 6. NRS 704.741 is hereby amended to read as follows:

704.741 1. A utility which supplies electricity in this State shall, on or before July 1 of every third year, in the manner specified by the Commission, submit a plan to increase its supply of electricity or decrease the demands made on its system by its customers to the Commission.

2. The Commission shall, by regulation ~~[, prescribe]~~ ***:***

(a) Prescribe the contents of such a plan including, but not limited to, the methods or formulas which are used by the utility to:

~~[(a)]~~ ***(1)*** Forecast the future demands; and

~~[(b)]~~ ***(2)*** Determine the best combination of sources of supply to meet the demands or the best method to reduce them ~~[.]~~ ***; and***

(b) Designate renewable energy zones and revise the designated renewable energy zones as the Commission deems necessary.

3. The Commission shall require the utility to include in its plan an energy efficiency program for residential customers which reduces the consumption of electricity or any fossil fuel. The energy efficiency program must include, without limitation, the use of new solar thermal energy sources.

4. The Commission shall require the utility to include in its plan a plan for construction or expansion of transmission facilities to serve renewable energy zones and to facilitate the utility in meeting the portfolio standard established by NRS 704.7821.

5. As used in this section, "renewable energy zones" means specific geographic zones where renewable energy resources are sufficient to develop generation capacity and where transmission constrains the delivery of electricity from those resources to customers.

Sec. 7. NRS 704.746 is hereby amended to read as follows:

704.746 1. After a utility has filed its plan pursuant to NRS 704.741, the Commission shall convene a public hearing on the adequacy of the plan.

2. At the hearing any interested person may make comments to the Commission regarding the contents and adequacy of the plan.

3. After the hearing, the Commission shall determine whether:

(a) The forecast requirements of the utility are based on substantially accurate data and an adequate method of forecasting.

(b) The plan identifies and takes into account any present and projected reductions in the demand for energy that may result from measures to improve energy efficiency in the industrial,

commercial, residential and energy producing sectors of the area being served.

(c) The plan adequately demonstrates the economic, environmental and other benefits to this State and to the customers of the utility, associated with the following possible measures and sources of supply:

(1) Improvements in energy efficiency;

(2) Pooling of power;

(3) Purchases of power from neighboring states or countries;

(4) Facilities that operate on solar or geothermal energy or wind;

(5) Facilities that operate on the principle of cogeneration or hydrogeneration; ~~[and]~~

(6) Other generation facilities ~~[.]~~ ***; and***

(7) Other transmission facilities.

4. The Commission may give preference to the measures and sources of supply set forth in paragraph (c) of subsection 3 that:

(a) Provide the greatest economic and environmental benefits to the State;

(b) Are consistent with the provisions of this section; and

(c) Provide levels of service that are adequate and reliable.

5. The Commission shall:

(a) Adopt regulations which determine the level of preference to be given to those measures and sources of supply; and

(b) Consider the value to the public of using water efficiently when it is determining those preferences.

6. The Commission shall:

(a) Consider the level of financial commitment from developers of renewable energy projects in each renewable energy zone, as designated pursuant to subsection 2 of NRS 704.741; and

(b) Adopt regulations establishing a process for considering such commitments including, without limitation, contracts for the sale of energy, leases of land and mineral rights, cash deposits and letters of credit.

Sec. 8. NRS 704.751 is hereby amended to read as follows:

704.751 1. After a utility has filed the plan required pursuant to NRS 704.741, the Commission shall issue an order accepting the plan as filed or specifying any portions of the plan it deems to be inadequate:

(a) Within 135 days for any portion of the plan relating to the energy supply plan for the utility for the 3 years covered by the plan; and

(b) Within 180 days for all portions of the plan not described in paragraph (a).

2. If a utility files an amendment to a plan, the Commission shall issue an order accepting the amendment as filed or specifying any portions of the amendment it deems to be inadequate within 135 days of the filing of the amendment.

3. All prudent and reasonable expenditures made to develop the utility's plan, including environmental, engineering and other studies, must be recovered from the rates charged to the utility's customers.

4. The Commission may accept a transmission plan submitted pursuant to subsection 4 of NRS 704.741 for a renewable energy zone if the Commission determines that the construction or expansion of transmission facilities would facilitate the utility meeting the portfolio standard, as defined in NRS 704.7805.

5. The Commission shall adopt regulations establishing the criteria for determining the adequacy of a transmission plan submitted pursuant to subsection 4 of NRS 704.741.

Sec. 8.2. NRS 704.775 is hereby amended to read as follows:

704.775 1. The billing period for net metering must be a monthly period.

2. The net energy measurement must be calculated in the following manner:

(a) The utility shall measure, in kilowatt-hours, the net electricity produced or consumed during the billing period, in accordance with normal metering practices.

(b) If the electricity supplied by the utility exceeds the electricity generated by the customer-generator which is fed back to the utility during the billing period, the customer-generator must be billed for the net electricity supplied by the utility.

(c) If the electricity generated by the customer-generator which is fed back to the utility exceeds the electricity supplied by the utility during the billing period:

(1) Neither the utility nor the customer-generator is entitled to compensation for the electricity provided to the other during the billing period.

(2) The excess electricity which is fed back to the utility during the billing period is carried forward to the next billing period as an addition to the kilowatt-hours generated by the customer-generator in that billing period. If the customer-generator is billed for electricity pursuant to a time-of-use rate schedule, the excess electricity carried forward must be added to the same time-of-use period as the time-of-use period in which it was generated unless the

subsequent billing period lacks a corresponding time-of-use period. In that case, the excess electricity carried forward must be apportioned evenly among the available time-of-use periods.

(3) Excess electricity may be carried forward to subsequent billing periods indefinitely, but a customer-generator is not entitled to receive compensation for any excess electricity that remains if:

(I) The net metering system ceases to operate or is disconnected from the utility's transmission and distribution facilities;

(II) The customer-generator ceases to be a customer of the utility at the premises served by the net metering system; or

(III) The customer-generator transfers the net metering system to another person.

(4) The value of the excess electricity must not be used to reduce any other fee or charge imposed by the utility.

3. If the cost of purchasing and installing a net metering system was paid for:

(a) In whole or in part by a utility, the electricity generated by the net metering system shall be deemed to be electricity that the utility generated or acquired from a renewable energy system for the purposes of complying with its portfolio standard pursuant to NRS 704.7801 to 704.7828, inclusive ~~[.]~~ ***, and section 4.7 of this act.***

(b) Entirely by a customer-generator, the Commission shall issue to the customer-generator portfolio energy credits for use within the system of portfolio energy credits adopted by the Commission pursuant to NRS 704.7821 ***and section 4.7 of this act*** equal to the electricity generated by the net metering system.

4. A bill for electrical service is due at the time established pursuant to the terms of the contract between the utility and the customer-generator.

Sec. 8.4. NRS 704.7801 is hereby amended to read as follows:

704.7801 As used in NRS 704.7801 to 704.7828, inclusive, ***and section 4.7 of this act,*** unless the context otherwise requires, the words and terms defined in NRS 704.7802 to 704.7819, inclusive, have the meanings ascribed to them in those sections.

Sec. 8.6. NRS 704.7805 is hereby amended to read as follows:

704.7805 "Portfolio standard" means the amount of electricity that a provider must generate, acquire or save from portfolio energy systems or efficiency measures, as established by the Commission pursuant to NRS 704.7821 ~~[.]~~ ***and section 4.7 of this act.***

Sec. 8.8. NRS 704.7815 is hereby amended to read as follows:

704.7815 "Renewable energy system" means:

1. A facility or energy system that ~~[:~~

~~(a) Uses~~] ***uses*** renewable energy or energy from a qualified energy recovery process to generate electricity ~~[,]~~ and ***:***

(a) Uses the electricity that it generates from renewable energy or energy from a qualified recovery process in this State; or

(b) Transmits or distributes the electricity that it generates from renewable energy or energy from a qualified energy recovery process ~~[via:~~

~~(1) A power line which is dedicated to the transmission or distribution of electricity generated from renewable energy or energy from a qualified energy recovery process and which is connected to a facility or system owned, operated or controlled by a provider of electric service; or~~

~~(2) A power line which is shared with not more than one facility or energy system generating electricity from nonrenewable energy and which is connected to a facility or system owned, operated or controlled by a provider of electric service.~~] ***to a provider of electric service for delivery into and use in this State.***

2. A solar energy system that reduces the consumption of electricity or any fossil fuel.

3. A net metering system used by a customer-generator pursuant to NRS 704.766 to 704.775, inclusive.

Sec. 9. NRS 704.7821 is hereby amended to read as follows:

704.7821 1. For each provider of electric service, the Commission shall establish a portfolio standard. The portfolio standard must require each provider to generate, acquire or save electricity from portfolio energy systems or efficiency measures in an amount that is:

(a) For calendar years 2005 and 2006, not less than 6 percent of the total amount of electricity sold by the provider to its retail customers in this State during that calendar year.

(b) For calendar years 2007 and 2008, not less than 9 percent of the total amount of electricity sold by the provider to its retail customers in this State during that calendar year.

(c) For calendar years 2009 and 2010, not less than 12 percent of the total amount of electricity sold by the provider to its retail customers in this State during that calendar year.

(d) For calendar years 2011 and 2012, not less than 15 percent of the total amount of electricity sold by the provider to its retail customers in this State during that calendar year.

(e) For calendar years 2013 and 2014, not less than 18 percent of the total amount of electricity sold by the provider to its retail customers in this State during that calendar year.

(f) For calendar ~~[~~year~~]~~ ***years*** 2015 ~~[~~and for each calendar year thereafter,~~]~~ ***through 2019, inclusive,*** not less than 20 percent of the total amount of electricity sold by the provider to its retail customers in this State during that calendar year.

(g) For calendar years 2020 through 2024, inclusive, not less than 22 percent of the total amount of electricity sold by the provider to its retail customers in this State during that calendar year.

(h) For calendar year 2025 and for each calendar year thereafter, not less than 25 percent of the total amount of electricity sold by the provider to its retail customers in this State during that calendar year.

2. ~~[~~Except as otherwise provided in subsection 3, in~~]~~ ***In*** addition to the requirements set forth in subsection 1, the portfolio standard for each provider must require that:

(a) Of the total amount of electricity that the provider is required to generate, acquire or save from portfolio energy systems or efficiency measures during each calendar year, not less than ***:***

(1) For calendar years 2009 through 2015, inclusive, 5 percent of that amount must be generated or acquired from solar renewable energy systems.

(2) For calendar year 2016 and for each calendar year thereafter, 6 percent of that amount must be generated or acquired from solar renewable energy systems.

(b) Of the total amount of electricity that the provider is required to generate, acquire or save from portfolio energy systems or efficiency measures during each calendar year, not more than 25 percent of that amount may be based on energy efficiency measures. If the provider intends to use energy efficiency measures to comply with its portfolio standard during any calendar year, of the total amount of electricity saved from energy efficiency measures for which the provider seeks to obtain portfolio energy credits pursuant to this paragraph, at least 50 percent of that amount must be saved from energy efficiency measures installed at service locations of residential customers of the provider, unless a different percentage is approved by the Commission.

(c) If the provider acquires or saves electricity from a portfolio energy system or efficiency measure pursuant to a renewable energy contract or energy efficiency contract with another party:

(1) The term of the contract must be not less than 10 years, unless the other party agrees to a contract with a shorter term; and

(2) The terms and conditions of the contract must be just and reasonable, as determined by the Commission. If the provider is a

utility provider and the Commission approves the terms and conditions of the contract between the utility provider and the other party, the contract and its terms and conditions shall be deemed to be a prudent investment and the utility provider may recover all just and reasonable costs associated with the contract.

3. ~~[The provisions of paragraphs (b) and (c) of subsection 2 do not apply to a provider of new electric resources pursuant to chapter 704B of NRS with respect to its use of an energy efficiency measure that is financed by a customer, or which is a geothermal energy system for the provision of heated water to one or more customers and which reduces the consumption of electricity or any fossil fuel, except that, of the total amount of electricity that the provider is required to generate, acquire or save from portfolio energy systems or efficiency measures during each calendar year, not more than 25 percent of that amount may be based on energy efficiency measures.~~ ~~4.]~~ If, for the benefit of one or more retail customers in this State, the provider ~~[, or the customer of a provider of new electric resources pursuant to chapter 704B of NRS,]~~ has paid for or directly reimbursed, in whole or in part, the costs of the acquisition or installation of a solar energy system which qualifies as a renewable energy system and which reduces the consumption of electricity, the total reduction in the consumption of electricity during each calendar year that results from the solar energy system shall be deemed to be electricity that the provider generated or acquired from a renewable energy system for the purposes of complying with its portfolio standard.

~~[5.]~~ ***4.*** The Commission shall adopt regulations that establish a system of portfolio energy credits that may be used by a provider to comply with its portfolio standard.

~~[6.]~~ ***5.*** Except as otherwise provided in subsection ~~[7,]~~ ***6,*** each provider shall comply with its portfolio standard during each calendar year.

~~[7.]~~ ***6.*** If, for any calendar year, a provider is unable to comply with its portfolio standard through the generation of electricity from its own renewable energy systems or, if applicable, through the use of portfolio energy credits, the provider shall take actions to acquire or save electricity pursuant to one or more renewable energy contracts or energy efficiency contracts. If the Commission determines that, for a calendar year, there is not or will not be a sufficient supply of electricity or a sufficient amount of energy savings made available to the provider pursuant to renewable energy contracts and energy efficiency contracts with just and reasonable terms and conditions, the Commission shall exempt the provider, for

that calendar year, from the remaining requirements of its portfolio standard or from any appropriate portion thereof, as determined by the Commission.

~~[8.]~~ ***7.*** The Commission shall adopt regulations that establish:

(a) Standards for the determination of just and reasonable terms and conditions for the renewable energy contracts and energy efficiency contracts that a provider must enter into to comply with its portfolio standard.

(b) Methods to classify the financial impact of each long-term renewable energy contract and energy efficiency contract as an additional imputed debt of a utility provider. The regulations must allow the utility provider to propose an amount to be added to the cost of the contract, at the time the contract is approved by the Commission, equal to a compensating component in the capital structure of the utility provider. In evaluating any proposal made by a utility provider pursuant to this paragraph, the Commission shall consider the effect that the proposal will have on the rates paid by the retail customers of the utility provider.

8. Except as otherwise provided in section 4.7 of this act, the provisions of this section do not apply to a provider of new electric resources as defined in NRS 704B.130.

9. As used in this section:

(a) "Energy efficiency contract" means a contract to attain energy savings from one or more energy efficiency measures owned, operated or controlled by other parties.

(b) "Renewable energy contract" means a contract to acquire electricity from one or more renewable energy systems owned, operated or controlled by other parties.

(c) "Terms and conditions" includes, without limitation, the price that a provider must pay to acquire electricity pursuant to a renewable energy contract or to attain energy savings pursuant to an energy efficiency contract.

Sec. 9.3. NRS 704.7822 is hereby amended to read as follows:

704.7822 For the purpose of complying with a portfolio standard established pursuant to NRS 704.7821 ~~[,]~~ ***or section 4.7 of this act,*** a provider shall be deemed to have generated or acquired 2.4 kilowatt-hours of electricity from a renewable energy system for each 1.0 kilowatt-hour of actual electricity generated or acquired from a solar photovoltaic system, if:

1. The system is installed on the premises of a retail customer; and

2. On an annual basis, at least 50 percent of the electricity generated by the system is utilized by the retail customer on that premises.

Sec. 9.5. NRS 704.7823 is hereby amended to read as follows:

704.7823 1. Except as otherwise provided in subsection 2, any electricity generated by a provider using any system that involves drawing or creating electricity from tires must be deemed to have not come from a renewable energy system for the purpose of complying with a portfolio standard established pursuant to NRS 704.7821 ~~[.]~~ ***or section 4.7 of this act.***

2. For the purpose of complying with a portfolio standard established pursuant to NRS 704.7821 ~~[,]~~ ***or section 4.7 of this act,*** a provider shall be deemed to have generated or acquired 0.7 kilowatt-hours of electricity from a renewable energy system for each 1.0 kilowatt-hour of actual electricity generated or acquired from a system that utilizes a reverse polymerization process, if:

(a) The system is installed on the premises of a retail customer; and

(b) On an annual basis, at least 50 percent of the electricity generated by the system is utilized by the retail customer on that premises.

3. As used in this section:

(a) "Reverse polymerization process" means a process that generates electricity from a tire that:

(1) Uses microwave reduction; and

(2) Does not involve combustion of the tire.

(b) "Tire" includes any tire for any vehicle or device in, upon or by which any person or property is or may be transported or drawn upon land.

Sec. 9.7. NRS 704.7828 is hereby amended to read as follows:

704.7828 1. The Commission shall adopt regulations to carry out and enforce the provisions of NRS 704.7801 to 704.7828, inclusive ~~[.]~~ ***, and section 4.7 of this act.*** The regulations adopted by the Commission may include any enforcement mechanisms which are necessary and reasonable to ensure that each provider of electric service complies with its portfolio standard. Such enforcement mechanisms may include, without limitation, the imposition of administrative fines.

2. ***If a provider exceeds the portfolio standard for any calendar year, the Commission shall authorize the provider to carry forward to subsequent calendar years for the purpose of complying with the portfolio standard for those subsequent calendar years any excess kilowatt-hours of electricity that the***

provider generates, acquires or saves from portfolio energy systems or efficiency measures.

3. If a provider does not comply with its portfolio standard for any calendar year and the Commission has not exempted the provider from the requirements of its portfolio standard pursuant to NRS 704.7821 ~~[,]~~ ***or section 4.7 of this act,*** the Commission ~~[may]~~ ***:***

(a) Shall require the provider to carry forward to subsequent calendar years the amount of the deficiency in kilowatt-hours of electricity that the provider does not generate, acquire or save from portfolio energy systems or efficiency measures during a calendar year in violation of its portfolio standard; and

(b) May impose an administrative fine against the provider or take other administrative action against the provider, or do both.

~~[3.]~~ ***4.*** The Commission may impose an administrative fine against a provider based upon:

(a) Each kilowatt-hour of electricity that the provider does not generate, acquire or save from portfolio energy systems or efficiency measures during a calendar year in violation of its portfolio standard; or

(b) Any other reasonable formula adopted by the Commission.

~~[4.]~~ ***5.*** In the aggregate, the administrative fines imposed against a provider for all violations of its portfolio standard for a single calendar year must not exceed the amount which is necessary and reasonable to ensure that the provider complies with its portfolio standard, as determined by the Commission.

~~[5.]~~ ***6.*** If the Commission imposes an administrative fine against a utility provider:

(a) The administrative fine is not a cost of service of the utility provider;

(b) The utility provider shall not include any portion of the administrative fine in any application for a rate adjustment or rate increase; and

(c) The Commission shall not allow the utility provider to recover any portion of the administrative fine from its retail customers.

~~[6.]~~ ***7.*** All administrative fines imposed and collected pursuant to this section must be deposited in the State General Fund.

Sec. 10. NRS 704.873 is hereby amended to read as follows:

704.873 If a public utility that is subject to the provisions of NRS 704.736 to 704.751, inclusive, ***and section 4.3 of this act*** applies to the Commission for a permit for the construction of a utility facility:

1. The Commission has exclusive jurisdiction with regard to the determination of whether a need exists for the utility facility; and

2. No other permitting entity may consider, in its review of any application for a permit, license or other approval for the construction of the utility facility, whether a need exists for the utility facility.

Sec. 10.3. (Deleted by amendment.)

Sec. 10.5. NRS 704B.320 is hereby amended to read as follows:

704B.320 1. For eligible customers whose loads are in the service territory of an electric utility that primarily serves densely populated counties, the aggregate amount of energy that all such eligible customers purchase from providers of new electric resources before July 1, 2003, must not exceed 50 percent of the difference between the existing supply of energy generated in this State that is available to the electric utility and the existing demand for energy in this State that is consumed by the customers of the electric utility, as determined by the Commission.

2. An eligible customer that is a nongovernmental commercial or industrial end-use customer whose load is in the service territory of an electric utility that primarily serves densely populated counties shall not purchase energy, capacity or ancillary services from a provider of new electric resources unless, as part of the proposed transaction, the eligible customer agrees to:

(a) Contract with the provider to purchase:

(1) An additional amount of energy which is equal to 10 percent of the total amount of energy that the eligible customer is purchasing for its own use under the proposed transaction and which is purchased at the same price, terms and conditions as the energy purchased by the eligible customer for its own use; and

(2) The capacity and ancillary services associated with the additional amount of energy at the same price, terms and conditions as the capacity and ancillary services purchased by the eligible customer for its own use; and

(b) Offers to assign the rights to the contract to the electric utility for use by the remaining customers of the electric utility.

3. If an eligible customer is subject to the provisions of subsection 2, the eligible customer shall include with its application filed pursuant to NRS 704B.310 all information concerning the contract offered to the electric utility that is necessary for the Commission to determine whether it is in the best interest of the remaining customers of the electric utility for the electric utility to accept the rights to the contract. Such information must include,

without limitation, the amount of the energy and capacity to be purchased under the contract, the price of the energy, capacity and ancillary services and the duration of the contract.

4. Notwithstanding any specific statute to the contrary, information concerning the price of the energy, capacity and ancillary services and any other terms or conditions of the contract that the Commission determines are commercially sensitive:

(a) Must not be disclosed by the Commission except to the Regulatory Operations Staff of the Commission, the Consumer's Advocate and his staff and the electric utility for the purposes of carrying out the provisions of this section; and

(b) Except as otherwise provided in NRS 239.0115, shall be deemed to be confidential for all other purposes, and the Commission shall take such actions as are necessary to protect the confidentiality of such information.

5. If the Commission determines that the contract:

(a) Is not in the best interest of the remaining customers of the electric utility, the electric utility shall not accept the rights to the contract, and the eligible customer is entitled to all rights to the contract.

(b) Is in the best interest of the remaining customers of the electric utility, the electric utility shall accept the rights to the contract and the eligible customer shall assign all rights to the contract to the electric utility. A contract that is assigned to the electric utility pursuant to this paragraph shall be deemed to be an approved part of the resource plan of the electric utility and a prudent investment, and the electric utility may recover all costs for the energy, capacity and ancillary services acquired pursuant to the contract. To the extent practicable, the Commission shall take actions to ensure that the electric utility uses the energy, capacity and ancillary services acquired pursuant to each such contract only for the benefit of the remaining customers of the electric utility that are not eligible customers, with a preference for the remaining customers of the electric utility that are residential customers with small loads.

6. The provisions of this section do not exempt the electric utility, in whole or in part, from the requirements imposed on the electric utility pursuant to NRS 704.7801 to 704.7828, inclusive, ***and section 4.7 of this act,*** to comply with its portfolio standard. The Commission shall not take any actions pursuant to this section that conflict with or diminish those requirements.

Sec. 10.7. (Deleted by amendment.)

Sec. 11. Any public utility required to file a plan pursuant to NRS 704.741 that would not otherwise be required to file a new plan before January 1, 2011, shall submit an amendment to its existing plan by January 1, 2011, that complies with the provisions relating to a transmission plan in NRS 704.741, as amended by section 6 of this act.

Sec. 11.5. (Deleted by amendment.)

Sec. 12. The Public Utilities Commission of Nevada shall, not later than January 1, 2010, adopt regulations that designate renewable energy zones as defined in NRS 704.741, as amended by section 6 of this act.

Sec. 13. 1. This act becomes effective on July 1, 2009.

2. Sections 2 and 3 of this act expire by limitation on June 30, 2011.

APPENDIX A-5

STATE OF NEVADA – EXECUTIVE ORDER 2011-18

State of Nevada

Executive Department

Executive Order 2011-18

PROVIDING DIRECTION TO THE NEW ENERGY INDUSTRY TASK FORCE AND ESTABLISHING A TECHNICAL ADVISORY COMMITTEE THERETO

WHEREAS, renewable energy is important to the economy of the state and plays a role in the overall health, safety and welfare of the people of the State;

WHEREAS, Nevada is home to some of the most accessible renewable energy resources in the world, providing for clean, valuable electricity generation for the region;

WHEREAS, Nevada is a leader among the leaders in the nation to adopt policy that supports the development of our renewable resources;

WHEREAS, the Office of Energy plays a critical role in the development of a statewide plan for the promotion and proliferation of a sustainable and appropriate renewable energy industry;

WHEREAS, coordination of transmission planning and development is critical to the success of the renewable energy industry in the State;

WHEREAS, the State needs to be an active participant in the regional renewable energy and transmission market and planning activities that are consistent with accepted and adopted regional plans;

WHEREAS, the State needs to insure that the public interest is served through the creation of a competitive energy market in a manner that is reasonable and not discriminatory or preferential;

WHEREAS, transmission facility developers should share similar benefits and obligations commensurate with their participation in the cost allocation of transmission development that is selected for inclusion in the State and/or regional transmission plan;

WHEREAS, fostering greater and more timely renewable energy development requires the State to establish a more cohesive and integrated statewide strategy, including greater coordination and streamlining of the siting, permitting, and improving the manner in which the transmission infrastructure is developed; and

WHEREAS, Article 5, Section 1 of the Nevada Constitution provides that, "The Supreme Executive Power of this State shall be vested in a Chief Magistrate who shall be Governor of the State of Nevada."

NOW, THEREFORE, by the authority vested in me as Governor by the Constitution and the laws of the State of Nevada, I hereby direct and order:

1. The New Energy Industry Task Force ("Task Force"), established by NRS 701.500 as amended, is hereby charged with facilitating the timely development of transmission facilities and renewable energy resources in this State, which includes without limitation facilitation of permitting, construction, and electrical interconnection of these facilities and resources.

2. The Task Force shall work with the Director to:

a) Identify and establish appropriate corridors for the transmission of electricity in this State recognizing Renewable Energy Zones adopted by the Public Utilities Commission pursuant to NRS 704.741(2)(b);

b) Promote the development and regionalization of transmission facilities and renewable energy resources in this state and in the western United States in a manner that is reasonable and not discriminatory or preferential; which considers the impacts to the citizens of the state of Nevada; and which creates an environment in this state that invites the development of these facilities;

c) Coordinate with existing electrical utilities, the Public Utilities Commission and other stakeholders on development of regional transmission planning and cost allocation strategies for interstate transmission facilities, while improving coordination for the development and construction of transmission facilities among local governments, between neighboring states and neighboring balancing authorities; and

d) Develop the business case from the perspective of Nevadans and our neighboring states necessary to develop our State's renewable resources and related industries with lowest possible risk to ratepayers.

3. The Nevada State Office of Energy and the Public Utilities Commission of Nevada will work collaboratively, and in coordination with the Task Force, with the intent to adequately plan and coordinate issues regarding transmission of renewable energy generation within the regional energy transmission market for the benefit of the State.

4. The Director of the Office of Energy shall form a Technical Advisory Committee to assist the Task Force in its work. Members of the Advisory Committee will not have a vote in the final recommendations of the Task Force and will serve at the pleasure of the Director with the express purpose of furthering the goals and mission of the Task Force. The Director shall ensure the Technical Advisory Committee includes representation from the Public Utilities Commission, Nevada Legislature, Board of Economic Development, Nevada System of Higher Education and such federal agencies or private enterprises as the Director deems necessary.

5. On or before August 1, 2012 the Task Force will present a report to the Governor demonstrating the business case for the production and transmission of renewable energy for native and regional load requirements.

6. On or before August 1, 2012 the Task Force will present a report to the Governor that recommends policy or regulatory changes that supports the goals of the Task Force.

7. On or before August 1, 2012 the Task Force will present a report to the Governor that clearly demonstrates the direction of the State as it pertains to long term regional transmission and cost allocation planning and in compliance with the Federal Electric Regulatory Commission Order 1000.

8. The Director of the Office of Energy shall coordinate efforts of the Task Force and other state, regional and federal organizations to carry out the orders as set forth in this Executive Order.

9. Meetings of the Task Force and Technical Advisory Committee shall be held in Carson City at the State Capital with members participating by video conference from the Grant Sawyer Building in Las Vegas if necessary.

10. To the extent this order conflicts with any previous executive order, this order controls.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Nevada to be affixed at the State Capitol in Carson City, this 21st day of November, in the year two thousand eleven.

Governor of the State of Nevada

By the Governor:

Secretary of State

Deputy Secretary of State

APPENDIX A-6

INTERMOUNTAIN POWER AGENCY MEMBERS LIST

Generation Entitlement Shares

California Purchasers	
Los Angeles Department of Water and Power	44.617%
City of Anaheim	13.225%
City of Riverside	7.617%
City of Pasadena	4.409%
City of Burbank	3.371%
City of Glendale	1.704%
Total - 6 California Purchasers	74.943%
Utah Cooperative Purchasers	
Moon Lake Electric Association, Inc.	2.000%
Mt. Wheeler Power, Inc.	1.786%
Dixie-Escalante Rural Electric Association, Inc.	1.534%
Garkane Power Association, Inc.	1.267%
Bridger Valley Electric Association	0.230%
Flowell Electric Association	0.200%
Total - 6 Cooperative Purchasers	7.017%
Utah Investor-Owned Purchasers	
Utah Power & Light Company (PacifiCorp)	4.000%
Utah Municipal Purchasers	
Murray City	4.000%
Logan City	2.469%
The City of Bountiful	1.695%
Kaysville City	0.739%
Heber Light & Power Company	0.627%
Hyrum City	0.551%
Fillmore City	0.512%
The City of Ephraim	0.503%
Lehi City	0.430%
Beaver City	0.413%

Parowan City	0.364%
Price	0.361%
Mount Pleasant	0.357%
City of Enterprise	0.199%
Morgan City	0.190%
City of Hurricane	0.147%
Monroe City	0.130%
The City of Fairview	0.120%
Spring City	0.060%
Town of Holden	0.048%
Town of Meadow	0.045%
Kanosh	0.040%
Town of Oak City	0.040%
Total - 23 Municipal Purchasers	14.040%

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